

Work Order ID 90535

90535

Page 1

September-19-12 11:55:44 AM

Item ID: D3436-9 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Pad
 Start Date: 9/18/12 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 10/05/12 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 12-09-20 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3436	Rev A								

100 0.00
 100 Small Fab
 Small Fab Memo 0.00
 Small Fab Cut & Punch as per Dwg D3195
 neo. 125

110 0.00
 110 QC6- Inspect dimensions to drawing
 QC Memo 0.00
 Quality Control

120 0.00
 120 Identify as per dwg & Stock Location: ST045
 Packaging Memo 0.00
 Packaging

4 0 Jm 12-10-18

DAS 16 2-89 12/10/19

4 12/10/19

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 90535***90535***

Page 2

September-19-12 11:55:44 AM

Item ID: D3436-9 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Pad
Start Date: 9/18/12 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 10/05/12 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

12/10/22

12-10-19

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
Landing Gear			General			Grain		Other	
<input type="checkbox"/> Bending	<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> Cracks	<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Turning Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Bend	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Burrs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Countersink	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Drawing
	<input type="checkbox"/> Finish	<input type="checkbox"/> Folio	<input type="checkbox"/> Grain	<input type="checkbox"/> Hardware	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Misread
	<input type="checkbox"/> Offset	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Part Moved
	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Temperature/Cure	<input type="checkbox"/> Weld	<input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Other		
<div style="border-bottom: 1px solid black; height: 15px; width: 100%;"></div> <div style="border-bottom: 1px solid black; height: 15px; width: 100%;"></div> <div style="border-bottom: 1px solid black; height: 15px; width: 100%;"></div>									

Picklist Print

September-19-12 11:55:43 AM

Page 1

Work Order ID: 90535

Parent Item: D3436-9

Parent Item Name: Pad

Start Date: 9/18/12

Required Date: 10/05/12

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP A05.05.11New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3195 60 Durometer Neoprene Rubber 1/8" thick		Manufactured	No			100	sf	97.4428	0.0382	0.1528 0.2			

Im 12-10-18

Location

Loc Qty

Loc Code

MAT052

97.44275697

42122

97.442757

42122

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

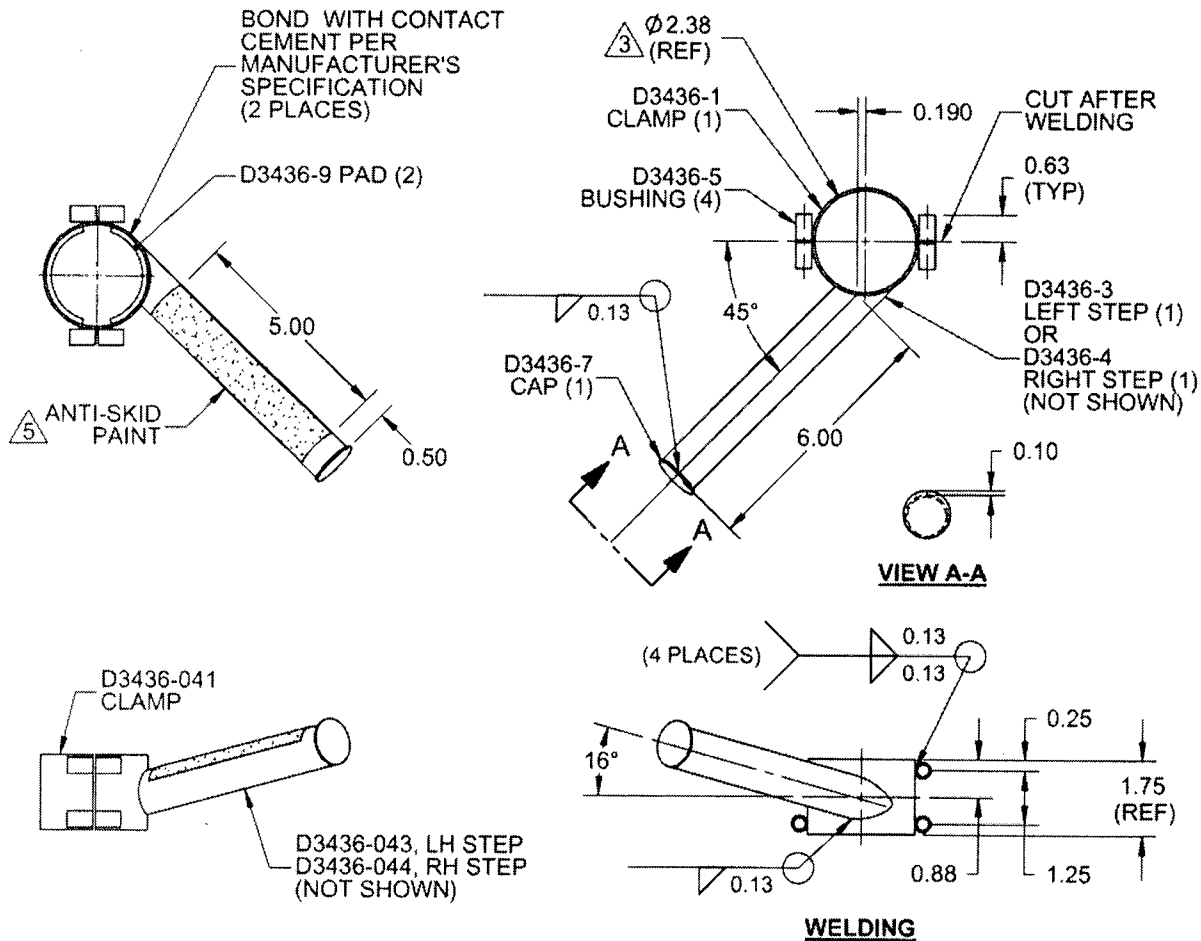
DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
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Material <input type="checkbox"/>											
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Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

DART

DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3436	REV. A SHEET 1 OF 4
DATE 05.04.28	TITLE MAINTENANCE STEP		SCALE 1:4
A	05.04.28	NEW ISSUE	

**NOTES:**

- 1) POSITION PARTS AS PER JIGS DT8772 AND DT8773
- 2) WELD PER DART QSI 004
- 3) FILLET BOTH TOP AND BOTTOM EDGES OF CLAMP ALONG 2.38 I.D. SECTION TO 0.03 RADIUS TO PREVENT SCORING AND SCRATCHING OF SKID CROSS TUBE
- 4) FINISH: POWDER COAT WHITE GLOSS (4.3.5.2) PER DART QSI 005 4.3
- 5) APPLY BLACK ANTI-SKID PAINT AS SHOWN PER DART QSI 005 4.4
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

RELEASED05-05-27 *[Signature]*

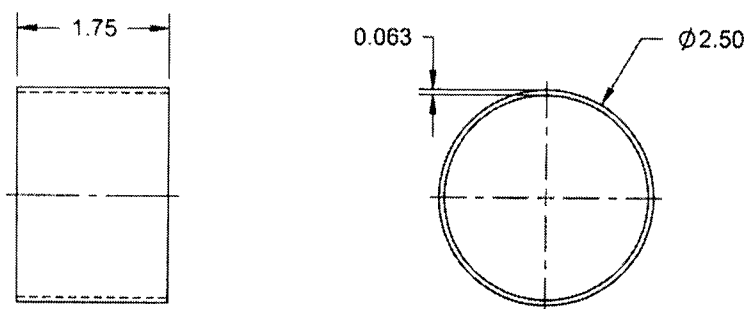
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO APPROVAL
WITHOUT NOTICE
WORK ORDER NO. 90535
12-09-20

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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3436	REV. A SHEET 2 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:2



D3436-1 CLAMP

- 1) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T2500W063)



D3436-5 BUSHING

- 2) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T0375W049)

RELEASED

05-05-27 *[Signature]*

D3436-1/-5, GENERAL NOTES:

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

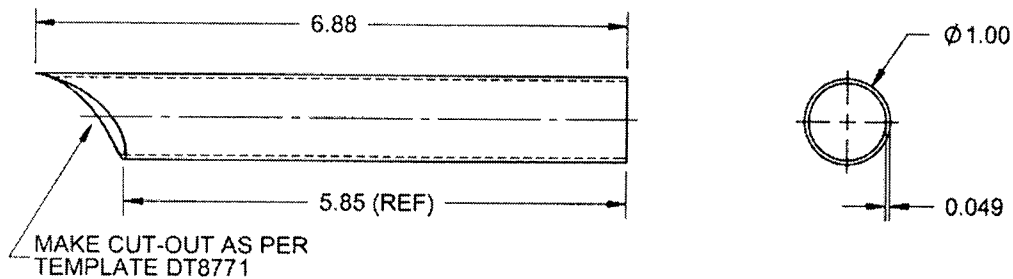
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90535



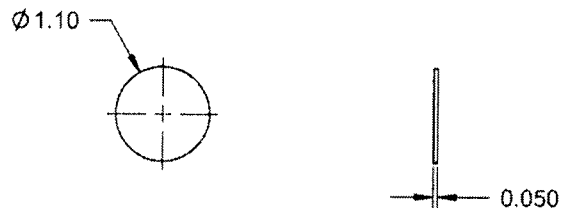
DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3436	REV. A SHEET 3 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:2



D3436-3 LEFT STEP

(D3436-4 RIGHT STEP - OPPOSITE, NOT SHOWN)

- 1) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T1000W049)



D3436-7 CAP

- 2) MATERIAL: AISI 4130N STEEL SHEET PER MIL-S-18729, AMS6350 OR AMS 6351 (REF. DART SPEC. M4130N-S050)

RELEASED

05-05-27 *[Signature]*

D3436-3/-7, GENERAL NOTES:

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

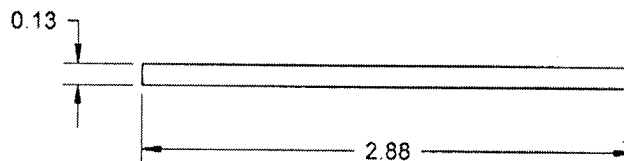
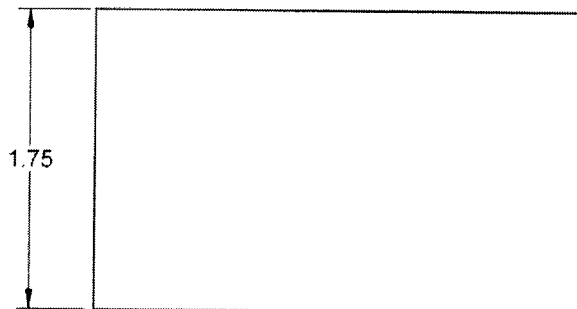
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DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3436	REV. A SHEET 4 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:1



RELEASED
05.05.27 #

D3436-9 PAD

NOTES:

- 1) MATERIAL: 60 DUROMETER NEOPRENE SHEET, 1/8" THICK
(REF. DART SPEC. M-NEO60-S.125) *neo. 125"*
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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